

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: David P. Ress et al.

Serial No. 10/742,324

Filed: 12/19/2003

For: **METERING IN PACKET-BASED TELEPHONY NETWORKS**

Examiner: Rasha S. Al Aubaidi

Art Unit: 2614

Mail Stop Appeal Brief – Patents

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Sir:

An **APPEAL BRIEF** is filed herewith. Appellant encloses a payment in the amount of \$510.00 as required by 37 C.F.R. § 1.17(c). If any additional fees are required in association with this appeal brief, the Director is hereby authorized to charge them to Deposit Account 50-1732, and consider this a petition therefor.

**APPEAL BRIEF**

**(1) REAL PARTY IN INTEREST**

The real party in interest is the assignee of record, i.e., Nortel Networks Limited of 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec Canada H4S 2A9, which is wholly owned by Nortel Networks Corporation, a Canadian corporation.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences to the best of Appellant's knowledge.

**(3) STATUS OF CLAIMS**

Claims 1 and 21 were rejected with the rejection made final on March 25, 2008.

Claims 10-16 and 30-36 were objected to as being dependent on a rejected claim, but have been deemed to be allowable if rewritten in independent form.

Claims 2-9, 17-20, 22-29, and 37-41 were withdrawn in response to the restriction requirement mailed June 14, 2007. Appellant notes that claim 1 is acknowledged by the Examiner to be generic. Appellant submits that the corresponding system claim 21 is also generic. Upon the allowance of claims 1 and 21, Appellant reserves the right to seek claims to

additional species which depend from or otherwise require all the limitations of the allowable generic claims as provided by 37 CFR § 1.141.

Claims 1, 10-16, 21, and 30-36 are pending and are the subject of this appeal.

#### **(4) STATUS OF AMENDMENTS**

All amendments have been entered to the best of Appellant's knowledge. No amendments have been filed after the Final Office Action mailed March 25, 2008.

#### **(5) SUMMARY OF CLAIMED SUBJECT MATTER**

In the following summary, Appellant has noted where in the Specification certain subject matter exists. Appellant wishes to point out that these citations are for demonstrative purposes only and that the Specification may include additional discussion of the various elements, citations to which are not pointed out below. Thus, the noted citations are in no way intended to limit the scope of the pending claims.

Independent claim 1 recites a method for providing metering from a gateway (such as one of the media gateways 22, Figures 1 and 9), in a packet network (such as packet network 12, Figure 1) comprising:

- a) receiving a message at the gateway, the message being sent using a media control protocol (see Specification, paragraph 0043, discussing messages sent using media control protocol and giving H.248 and Session Initiation Protocol as two non-limiting examples; see also paragraph 0051, listing H.248, Megaco, Session Initiation Protocol, and other analogous protocols), and the message comprising a complete call tariff model for controlling all metering in association with a call (Specification, paragraphs 0006, 0021, 0026, 0030-0032, and 0043-0046); and
- b) providing pulses from the gateway to a metering entity (such as metering device 18, Figures 1 and 10; or telephony endpoint 16(B) with metering function 20, Figures 1 and 11; see also Specification, paragraphs 0022, 0023, 0025, and 0048-0050) during the call according to the call tariff model (Specification, paragraphs 0006, 0021-0023, 0025, 0026, 0029-0032, 0043-0046, and 0048-0050).

Independent claim 21 recites a system for providing metering from a gateway (such as one of the media gateways 22, Figures 1 and 9) in a packet network (such as packet network 12, Figure 1) comprising:

- a) a packet interface (such as packet interface 46, Figure 9) to facilitate communication over a packet network (such as packet network 12, Figure 1) (Specification, paragraph 0048);
- b) a telephony line interface (such as telephony interface 48, Figure 9) to facilitate communications over a telephony line to either a telephony endpoint having a metering function (such as telephony endpoint 16(B) with metering function 20, Figures 1 and 11; see also Specification, paragraphs 0022, 0023, 0025, and 0048-0050) or a metering device associated with the telephony endpoint (such as metering device 18, Figures 1 and 10; see also Specification, paragraphs 0022, 0023, 0025, and 0048-0050); and
- c) a control system (such as control system 40, Figure 9) associated with the packet interface and the telephony line interface and adapted to:
  - i) receive a message over the packet network at the gateway, the message being sent using a media control protocol (see Specification, paragraph 0043, discussing messages sent using media control protocol and giving H.248 and Session Initiation Protocol as two non-limiting examples; see also paragraph 0051, listing H.248, Megaco, Session Initiation Protocol, and other analogous protocols), and the message comprising a complete call tariff model for controlling all metering in association with a call (Specification, paragraphs 0006, 0021, 0026, 0030-0032, and 0043-0046); and
  - ii) provide pulses via the telephony line interface during the call according to the call tariff model (Specification, paragraphs 0006, 0021-0023, 0025, 0026, 0029-0032, 0043-0046, and 0048-0050).

## **(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Whether claims 1 and 21 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0154174 A1 to Tassel et al. (hereinafter “Tassel”) in view of U.S. Patent Application Publication No. 2003/0152039 A1 to Roberts (hereinafter “Roberts”).

## **(7) ARGUMENT**

### **A. Introduction**

The Patent Office has not shown where all the elements of the pending claims are shown in the prior art with sufficient particularity to sustain an obviousness rejection. In particular, the Patent Office has not shown where the prior art discloses the feature of “receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call,” as recited in the claimed invention. First of all, the combination of Tassel and Roberts does not disclose or suggest where a message being sent **using a media control protocol** is received **at a gateway** in a packet network. Second, the combination of Tassel and Roberts does not teach or suggest receiving a message **at a gateway**, where the message comprises a **complete call tariff model for controlling all metering in association with a call**, as recited by the claimed invention. Furthermore, the Patent Office has not shown where the prior art discloses or suggests that **the gateway** then provides pulses to a metering entity during the call according to the call tariff model. Quite simply, the combination of Roberts and Tassel does not teach or suggest receiving at the gateway a message sent using a media control protocol that comprises a complete call tariff model for controlling all metering in association with a call, where the gateway then provides pulses to a metering entity during the call according to the call tariff model, as claimed in the present invention.

As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons along with the reasons noted below.

### **B. Summary Of References**

#### **1. U.S. Patent Application Publication No. 2003/0154174 A1 To Tassel**

Tassel is directed to a method of charging for a confederated network, such as the Internet, by the user terminals connected to the network (Tassel, Abstract). The network generates a tariff code, which is multicast to the user terminals, and the user terminals translate the tariff code to automatically generate a meter rule set that can be used to configure a network traffic meter. *Ibid.* In Tassel, the tariff is based on the amount of data transferred (Tassel, Abstract and paragraphs 0002 and 0003). Unlike the present invention, which is related to the implementation of hardware-based telephony metering in a packet network, Tassel discloses

creating a tariff for network usage (Tassel, paragraphs 0004-0014). In Tassel, the tariff is distributed to the user terminals as a binary file such as a Java bytecode and further distributed to a network accounting server (Tassel, paragraphs 0004-0014). Tassel discloses that a tariff code is created by the network management platform 40 and is multicast to all user terminals 5 in communication with a network (Tassel, paragraphs 0021-0023). The present invention does not distribute tariffs to a user terminal or a network accounting server and does not distribute tariffs in files of any kind. Moreover, the present invention does not require a user terminal, or any hardware-based metering aware terminal, but simply uses a gateway in a packet network.

## **2. U.S. Patent Application Publication No. 2003/0152039 A1 To Roberts**

Roberts is directed to a method of charging a consumer in real time for goods or services associated with the transport of packet traffic based on the data inside individual packets (Roberts, Abstract and paragraph 0012). The user is given a combined bill for the delivery of communication services and for the online purchase of goods and services by the user via the communications network (Roberts, Abstract). Thus, unlike the present invention, Roberts is concerned with real-time billing and packet analysis based tariffing. Roberts does not disclose how to provide metering information for transmittal in a packet network by using a media control protocol in order to realize an implementation of hardware-based metering between a gateway and a metering entity. Roberts merely discloses that a gateway serving node (GGSN) includes a packet analyzer used to handle the usage aspects of the tariff regime (Roberts, paragraph 0028). There is no mention of the GGSN in Roberts providing pulses to a metering entity during the call according to the call tariff model received at the gateway. In fact, there is no teaching in Roberts that the GGSN receives a message comprising a complete call tariff model.

## **C. Legal Standards For Establishing Obviousness**

Section 103(a) of the Patent Act provides the statutory basis for an obviousness rejection and reads as follows:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in

the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Courts have interpreted 35 U.S.C. § 103(a) as a question of law based on underlying facts. As the Federal Circuit stated:

Obviousness is ultimately a determination of law based on underlying determinations of fact. These underlying factual determinations include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) the extent of any proffered objective indicia of nonobviousness.

*Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 45 U.S.P.Q.2d (BNA) 1977, 1981 (Fed. Cir. 1998) (internal citations omitted).

Once the scope of the prior art is ascertained, the content of the prior art must be properly combined. “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demand known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).” *KSR Int’l v. Teleflex, Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 U.S.P.Q.2d 1385, 1396 (2007).

While the Patent Office is entitled to give claim terms their broadest reasonable interpretation, this interpretation is limited by a number of factors. First, the interpretation must be consistent with the specification. *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000); M.P.E.P. § 2111. Second, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, (Fed. Cir. 1999); M.P.E.P. § 2111. Finally, the interpretation must be reasonable. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004); M.P.E.P. § 2111.01. This means that the words of the claim must be given their plain meaning unless Appellant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

If a claim element is missing after the combination is made, then the combination does not render obvious the claimed invention, and the claims are allowable. As stated by the Federal

Circuit, “[if] the PTO fails to meet this burden, then the Appellant is entitled to the patent.” *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002).

#### **D. Claims 1 And 21 Are Patentable Over Tassel In View Of Roberts**

Claims 1 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tassel in view of Roberts. To establish *prima facie* obviousness, the Patent Office must show where each and every element of the claim is taught or suggested in the combination of references. M.P.E.P. § 2143.03. If the Patent Office cannot establish obviousness, the claims are allowable.

Before addressing the rejection, Appellant provides a brief overview of the present invention. The present invention facilitates efficient metering in a packet network environment by providing a single metering message, which contains sufficient information to provide the complete call tariff model for a particular call. The media gateway receiving the message can analyze the information provided in the message to determine how to provide metering pulses for all phases of the call, as well as any one-time charges, such as setup and add-on charges. The setup charges are associated with initiating the call and the add-on charges are other charges related to activating features during the call.

In contrast, the cited references are directed to solving a different problem in a different manner. Tassel is directed to a method of billing for a confederated network such as the Internet, based on the amount of data transferred (Tassel, Abstract and paragraphs 0002 and 0003). The present invention is not concerned with data-usage based billing of Internet users. Tassel discloses creating a tariff for network usage (Tassel, paragraphs 0004-0014). The present invention is related to a gateway implementation of hardware-based telephony metering in a packet network and is not directed to network usage. In Tassel, the tariff is distributed to the user terminals as a binary file such as a Java bytecode and further distributed to a network accounting server (Tassel, paragraphs 0004-0014). The present invention does not distribute tariffs to a user terminal or a network accounting server and does not distribute tariffs in files of any kind. Moreover, the present invention does not require a user terminal, or any hardware-based metering aware terminal.

Roberts is directed to a method of charging a consumer in real time for goods or services associated with the transport of packet traffic based on the data inside individual packets

(Roberts, Abstract and paragraph 0012). The present invention is not related to such real-time billing and is not related to packet analysis based tariffing. The present invention describes how to provide metering information for transmittal in a packet network by using a media control protocol in order to realize an implementation of hardware-based metering between a gateway and a metering entity. The present invention is not directed to assessing network usage or to data-based metering, as are Tassel and Roberts. Thus, Tassel and Roberts are inapplicable to the present invention and not surprisingly, the combination of Tassel and Roberts does not teach or suggest each and every limitation of the claimed invention.

In the Advisory Action, the Patent Office stated that the arguments comparing the present invention and the cited references, such as the fact that Tassel is directed to a method of billing for a confederated network such as the Internet, are irrelevant (Advisory Action mailed July 9, 2008, p. 2). The Patent Office also asserted that Appellant's arguments that the present invention is not related to such real-time billing and is not related to packet based analysis somehow read into the claim language. *Ibid.* Appellant respectfully submits that it was not reading anything into the claim language with those arguments. Appellant also respectfully submits that its arguments comparing the present invention and the cited references are not irrelevant. Roberts is directed to real-time billing and packet based analysis, and the fact that the present invention is not related to such real-time billing or packet based analysis shows that it is different from Roberts. Surely, distinctions between the claimed invention and the cited references are relevant. Appellant was simply pointing out that both Tassel and Roberts were directed to different situations and networks and were attempting to solve different problems than those addressed by the claimed invention. Due to these differences, it is not surprising that the combination of Tassel and Roberts does not teach or suggest each and every element of the claimed invention, as was previously argued and as discussed more fully below. As set forth below, because Tassel and Roberts are not directed to the same issue addressed by the claimed invention, the combination of Tassel and Roberts does not teach or suggest each and every element of claim 1.

Claim 1 recites a method for providing metering from a gateway in a packet network comprising:

- a) receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call; and



- b) providing pulses to a metering entity during the call according to the call tariff model.

**1. The Combination Of Tassel And Roberts Does Not Teach Or Suggest  
“Receiving A Message At A Gateway, The Message Being Sent Using A  
Media Control Protocol”**

The combination of Tassel and Roberts does not teach each and every element of claim 1. Tassel discloses that a tariff code is created by the network management platform 40 and is multicast to all user terminals 5 in communication with a network (Tassel, paragraphs 0021-0023). The Patent Office is reading the router 7 of Tassel as the claimed gateway and the multicast using IP as the claimed media gateway protocol (Final Office Action mailed March 25, 2008, p. 2). Appellant respectfully disagrees.

The router 7 of Tassel cannot be the claimed gateway. The router 7 of Tassel is merely an access router that provides a point of access between the customer terminal 5 and a subdomain 2A of the communications network (Tassel, paragraph 0019). There is no indication in Tassel that the router 7 receives a message sent using a media control protocol, wherein the message comprises a complete call tariff for controlling all metering in association with a call. In fact, there is no mention of any sort of message being received by the router 7 of Tassel. Since the router 7 of Tassel does not receive any message, much less a message sent using a media control protocol or a message comprising a complete call tariff for controlling all metering in association with a call, Tassel does not teach or suggest the element for which it is cited. Thus, Tassel does not teach or suggest “receiving a message at the gateway, the message being sent using a media control protocol,” as recited in claim 1.

In addition, the sending of the tariff code to the user terminals using IP multicast channels is not equivalent to the sending a message to the gateway using a media gateway protocol, as claimed in the present invention. The fact that IP channels are used in Tassel does not mean that a media gateway protocol is used (see Specification, paragraph 0043, discussing messages sent using media control protocol and giving H.248 and Session Initiation Protocol as two non-limiting examples). In fact, the router in Tassel is not a media gateway, so no media control protocol would be necessary in Tassel. Tassel does not teach or suggest sending a message comprising a complete call tariff model by using a media control protocol. The router 7 in Tassel is principally a passive element that forwards IP packets from one IP sub-domain to

another. In contrast, the claimed gateway of the present invention receives a message sent using a media control protocol and takes the call tariff model in the received message and transforms it into electrical impulses to be provided to the metering entity. The router 7 in Tassel does not receive a message sent using a media control protocol and does not provide pulses to a metering entity according to the call tariff model, as the claimed gateway does. Thus, the router 7 in Tassel cannot be the claimed gateway.

**2. The Combination Of Tassel And Roberts Does Not Teach Or Suggest “Receiving A Message At The Gateway, The Message Being Sent Using A Media Control Protocol, And The Message Comprising A Complete Call Tariff Model For Controlling All Metering In Association With A Call”**

Moreover, Tassel does not disclose or suggest “receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call,” as recited in claim 1 because Tassel does not disclose a message comprising a complete call tariff model for controlling all metering in association with a call. Tassel does disclose that a tariff code is created by the network management platform 40 and is multicast to all user terminals 5 in communication with a network (Tassel, paragraphs 0021-0023). However, the tariff code of Tassel is not a complete call tariff model for controlling all metering in association with a call. It is merely a code. In fact, Tassel is clear that the creation of a tariff is not an aspect of the invention described in Tassel (see Tassel, paragraph 0021).

The Patent Office notes that the user terminal in Tassel transforms the tariff code into a set of rules (Final Office Action mailed March 25, 2008, p. 2). Tassel does disclose that a tariff translator transforms the code into a set of rules that can be used to configure a meter that measures the number and type of packets received and transmitted by the terminals (Tassel, paragraph 0023). But the tariff translator is in the user terminal. Thus, the rules are generated by the user terminal in Tassel. In contrast, in the present invention, the complete call tariff model is sent in a message to the gateway and then the gateway provides pulses to a metering entity during the call according to the complete call tariff model. Since Tassel only discloses sending a code to the user terminal and then generating rules at the terminal (as opposed to at the gateway), there is no message sent in Tassel that comprises a complete call tariff model that is received by the gateway and used by the gateway to provide metering pulses. Accordingly, Tassel does not

teach or suggest “receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call,” as recited in claim 1.

The Patent Office admits that Tassel does not teach or suggest “that the gateway receives the complete tariff and forwards the tariff,” but alleges that Roberts “teaches that gateway GGSN receives the tariff information and forwards the information to the user.” (Final Office Action mailed March 25, 2008, p. 3). Appellant initially notes that the Patent Office has misread the claim language. Claim 1 does not recite “that the gateway receives the complete tariff and forwards the tariff,” but instead recites the steps of “receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call,” and “providing pulses from the gateway to a metering entity during the call according to the call tariff model.” Neither Tassel nor Roberts teaches or suggests the claimed steps because the combination of Tassel and Roberts fails to teach or suggest a gateway that receives a message sent using a media control protocol, wherein the message comprises a complete call tariff model for controlling all metering in association with a call, and where the gateway then provides pulses to a metering entity during the call according to the call tariff model, as claimed in the present invention. Neither Tassel nor Roberts, alone or in combination, discloses or suggests a gateway that provides pulses to a metering entity during the call according to the received call tariff model.

### **3. The Combination Of Tassel And Roberts Does Not Teach Or Suggest “Providing Pulses To A Metering Entity During The Call According To The Call Tariff Model”**

The Patent Office admits that Tassel does not teach or suggest such a gateway. Roberts also does not teach or suggest a gateway that provides pulses to a metering entity during the call according to the call tariff model. As an initial matter, Appellant does not see where Roberts discloses that the GGSN receives the tariff information and forwards it to the user, as alleged by the Patent Office. Paragraphs 0028 and 0029 of Roberts that were cited by the Patent Office do not indicate that tariff information is received by the GGSN and forwarded to the user. Roberts merely discloses that the GGSN includes a packet analyzer used to handle the usage aspects of the tariff regime (Roberts, paragraph 0028). In any event, there is no mention of the GGSN in Roberts providing pulses to a metering entity during the call according to the call tariff model

received at the gateway. In fact, there is no teaching in Roberts that the GGSN receives a message comprising a complete call tariff model. As with the router 7 in Tassel, the GGSN in Roberts cannot be the claimed gateway because the GGSN in Roberts does not receive a message sent using a media control protocol. The GGSN in Roberts is not a media gateway, so no media control protocol would be necessary or used in Roberts. Thus, the GGSN in Roberts cannot be the claimed gateway because it does not receive a message sent using a media control protocol where the message comprises a complete call tariff model that is used by the gateway to provide pulses to a metering entity during the call.

For the above reasons, the combination of Tassel and Roberts does not teach each and every limitation of claim 1. In addition, the Patent Office seems to place emphasis on its statement that it would be obvious to combine Tassel and Roberts in order to give the gateway the additional functionality of forwarding the metering information and that the function of metering is well known in the art and would yield the same results whether it is implemented in the gateway or the user terminal (Final Office Action mailed March 25, 2008, p. 3). Appellant believes that this statement shows the Patent Office's misunderstanding of the present invention and the cited references. Metering cannot occur in the user terminal. In the present invention, the complete call tariff model is sent to the gateway using a media control protocol, and the gateway generates pulses, which are sent to the metering entity. The metering pulses cannot be sent from a user terminal because there would be no way to adequately protect the terminal from tampering. Likewise, the GGSN in Roberts cannot "forward the metering information" to the user terminal. If Roberts and Tassel were combined, perhaps the tariff information could be used by the user terminal to provide an approximation of the potential charges from the call, but no actual charging or tariffing would occur in the user terminal, and no pulses would be sent from the gateway to a metering entity during the call. Thus, the combination of Roberts and Tassel does not teach or suggest receiving a message sent using a media control protocol that comprises a complete call tariff model for controlling all metering in association with a call at the gateway, where the gateway then provides pulses to a metering entity during the call according to the call tariff model, as claimed in the present invention. The claimed gateway receives a message sent using a media control protocol that comprises a complete call tariff model for controlling all metering in association with a call, and then the claimed gateway provides pulses to a metering entity during the call according to the call tariff model. The combination of Tassel and Roberts

does not disclose or suggest a gateway that performs these functions. Thus, the combination of Tassel and Roberts does not teach or suggest each and every element of claim 1. Accordingly, claim 1 is patentable.

Claim 21 is a system claim that contains limitations similar to those in claim 1. Thus, for at least the same reasons set forth above with respect to claim 1, the combination of Tassel and Roberts does not teach each and every element of claim 21. Claim 21 is therefore patentable.

Claims 10-16 and 30-36 were objected to as being dependent on a rejected claim, but have been deemed to be allowable if rewritten in independent form. In addition to containing allowable subject matter, Appellant respectfully submits that claims 10-16 and 30-36 are patentable based on their dependency from allowable claims 1 and 21, respectively.

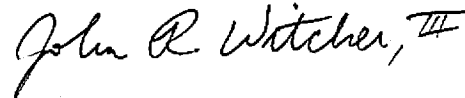
### **E. Conclusion**

The Patent Office has not shown where all the elements of the pending claims are shown in the prior art with sufficient particularity to sustain an obviousness rejection. In particular, the Patent Office has not shown where the prior art discloses the feature of “receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call,” as recited in the claimed invention. First of all, the combination of Tassel and Roberts does not disclose or suggest where a message being sent **using a media control protocol** is received at a gateway in a packet network. Second, the combination of Tassel and Roberts does not teach or suggest receiving a message at a gateway, where the message comprises a **complete call tariff model for controlling all metering in association with a call**, as recited by the claimed invention. Furthermore, the Patent Office has not shown where the prior art discloses or suggests that **the gateway** then provides pulses to a metering entity during the call according to the call tariff model. Quite simply, the combination of Roberts and Tassel does not teach or suggest receiving a message sent using a media control protocol that comprises a complete call tariff model for controlling all metering in association with a call at the gateway, where the gateway then provides pulses to a metering entity during the call according to the call tariff model, as claimed in the present invention. As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons along with the reasons noted below.

Respectfully submitted,

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Attorney Docket: 7000-296

## **(8) CLAIMS APPENDIX**

1. A method for providing metering from a gateway in a packet network comprising:
  - c) receiving a message at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call; and
  - d) providing pulses from the gateway to a metering entity during the call according to the call tariff model.
2. (Withdrawn) The method of claim 1 wherein the call tariff model defines a plurality of phases for the call, such that each phase is associated with a different tariff rate.
3. (Withdrawn) The method of claim 2 wherein each phase is associated with tariff parameters and a phase duration.
4. (Withdrawn) The method of claim 1 wherein the call tariff model defines a number of one-time charge pulses to provide during the call for a one-time charge.
5. (Withdrawn) The method of claim 4 wherein the one-time charge is a set-up charge.
6. (Withdrawn) The method of claim 4 wherein the one-time charge is an add-on charge.
7. (Withdrawn) The method of claim 4 wherein providing the pulses comprises providing the one-time charge pulses; providing recovery pulses to compensate for normal tariff pulses that should have been provided when the one-time charge pulses are provided; and providing normal tariff pulses after the one-time charge pulses and the recovery pulses are provided.
8. (Withdrawn) The method of claim 4 wherein the call tariff model divides a phase of the call into a plurality of pulse windows, such that a first pulse window defines the number of pulses for the one-time charge and normal tariff pulses for a first portion of the phase, and a second pulse window defines the normal tariff pulses for a second portion of the phase.

9. (Withdrawn) The method of claim 8 wherein the call includes other pulse windows, which correspond to other phases.
10. The method of claim 1 wherein the call tariff model defines a fractional pulse rate to implement over a given period, which is divided into  $n$  sub-periods, by providing a maximum pulse value, minimum pulse value, maximum pulse repetition value, and minimum pulse repetition value, such that the maximum pulse value and the minimum pulse value sum to  $n$ ; the maximum pulse value represents a number of pulses to provide in the maximum pulse repetition value of  $n$  sub-periods; and the minimum pulse value represents a number of pulses to provide in the minimum pulse repetition value of  $n$  sub-periods.
11. The method of claim 10 further comprising generating a pulse map corresponding to the fractional pulse rate to assign either the maximum pulse value or the minimum pulse value of pulses to each of the  $n$  sub-periods based on the minimum pulse repetition value and the maximum pulse repetition value.
12. The method of claim 10 wherein the maximum pulse repetition value of sub-periods at a beginning of the period are provided the maximum pulse value of pulses.
13. The method of claim 10 wherein the minimum pulse repetition value of sub-periods at a beginning of the period are provided the minimum pulse value of pulses.
14. The method of claim 10 wherein the maximum pulse value of pulses and the minimum pulse value of pulses are interleaved throughout the sub-periods during the period.
15. The method of claim 10 wherein when the fractional pulse rate is  $x.y$ , such that  $x$  is an integer;  $0 < y < 10$ ; the maximum pulse value is  $x + 1$ ; the minimum pulse value is  $x$ ; and the maximum pulse repetition value and the minimum pulse repetition value sum to  $n$ .
16. The method of claim 10 wherein the sub-period is a charge interval.



17. (Withdrawn) The method of claim 1 wherein the call tariff model defines charge intervals and a phase that is not evenly divisible by the charge intervals, such that the phase ends with a partial charge interval, the method further comprising providing a number of pulses during the partial charge interval equal to a number of pulses provided during a charge interval.
18. (Withdrawn) he method of claim 1 wherein the call tariff model defines charge intervals and a phase that is not evenly divisible by the charge intervals, such that the phase ends with a partial charge interval, the method further comprising providing a number of pulses during the partial charge interval to approximate a tariff pulse rate for the phase.
19. (Withdrawn) The method of claim 1 wherein parameter values for a given parameter for each phase of the call tariff model are provided with a single parameter identity in the message.
20. (Withdrawn) The method of claim 1 wherein the message is received from a media gateway controller over the packet network and the pulses are provided over a telephony circuit to either a telephony endpoint having a metering function or to a metering device associated with the telephony endpoint.
21. A system for providing metering from a gateway in a packet network comprising:
- a) a packet interface to facilitate communication over a packet network;
  - b) a telephony line interface to facilitate communications over a telephony line to either a telephony endpoint having a metering function or a metering device associated with the telephony endpoint; and
  - c) a control system associated with the packet interface and the telephony line interface and adapted to:
    - i. receive a message over the packet network at the gateway, the message being sent using a media control protocol, and the message comprising a complete call tariff model for controlling all metering in association with a call; and
    - ii. provide pulses via the telephony line interface during the call according to the call tariff model.

22. (Withdrawn) The system of claim 21 wherein the call tariff model defines a plurality of phases for the call, such that each phase is associated with a different tariff rate.
23. (Withdrawn) The system of claim 22 wherein each phase is associated with tariff parameters and a phase duration.
24. (Withdrawn) The system of claim 21 wherein the call tariff model defines a number of one-time charge pulses to provide during the call for a one-time charge.
25. (Withdrawn) The system of claim 24 wherein the one-time charge is a set-up charge.
26. (Withdrawn) The system of claim 24 wherein the one-time charge is an add-on charge.
27. (Withdrawn) The system of claim 24 wherein to provide the pulses, the control system is further adapted to provide the one-time charge pulses; provide recovery pulses to compensate for normal tariff pulses that should have been provided when the one-time charge pulses are provided; and provide normal tariff pulses after the one-time charge pulses and the recovery pulses are provided.
28. (Withdrawn) The system of claim 24 wherein the call tariff model divides a phase of the call into a plurality of pulse windows, such that a first pulse window defines the number of pulses for the one-time charge and normal tariff pulses for a first portion of the phase, and a second pulse window defines the normal tariff pulses for a second portion of the phase.
29. (Withdrawn) The system of claim 28 wherein the call includes other pulse windows, which correspond to other phases.
30. The system of claim 21 wherein the call tariff model defines a fractional pulse rate to implement over a given period, which is divided into  $n$  sub-periods, by providing a maximum pulse value, minimum pulse value, maximum pulse repetition value, and minimum pulse repetition value, such that the maximum pulse value and the minimum pulse value sum to  $n$ ; the

maximum pulse value represents a number of pulses to provide in the maximum pulse repetition value of  $n$  sub-periods; the minimum pulse value represents a number of pulses to provide in the minimum pulse repetition value of  $n$  sub-periods.

31. The system of claim 30 wherein the control system is further adapted to generate a pulse map corresponding to the fractional pulse rate to assign either the maximum pulse value or the minimum pulse value of pulses to each of the  $n$  sub-periods based on the minimum pulse repetition value and the maximum pulse repetition value.

32. The system of claim 30 wherein the maximum pulse repetition value of sub-periods at a beginning of the period are provided the maximum pulse value of pulses.

33. The system of claim 30 wherein the minimum pulse repetition value of sub-periods at a beginning of the period are provided the minimum pulse value of pulses.

34. The system of claim 30 wherein the maximum pulse value of pulses and the minimum pulse value of pulses are interleaved throughout the sub-periods during the period.

35. The system of claim 30 wherein when the fractional pulse rate is  $x.y$ , such that  $x$  is an integer;  $0 < y < 10$ ; the maximum pulse value is  $x + 1$ ; the minimum pulse value is  $x$ ; and the maximum pulse repetition value and the minimum pulse repetition value sum to  $n$ .

36. The system of claim 30 wherein the sub-period is a charge interval.

37. (Withdrawn) The system of claim 21 wherein the call tariff model defines charge intervals and a phase that is not evenly divisible by the charge intervals, such that the phase ends with a partial charge interval, wherein the control system is further adapted to provide a number of pulses during the partial charge interval equal to a number of pulses provided during a charge interval.

38. (Withdrawn) The system of claim 21 wherein the call tariff model defines charge intervals and a phase that is not evenly divisible by the charge intervals, such that the phase ends with a partial charge interval, wherein the control system is further adapted to provide a number of pulses during the partial charge interval to approximate a tariff pulse rate for the phase.

39. (Withdrawn) The system of claim 21 wherein parameter values for a given parameter for each phase of the call tariff model are provided with a single parameter identity in the message.

40. (Withdrawn) A method for providing metering from a gateway in a packet network comprising:

- a) generating a message comprising a complete call tariff model for controlling all metering in association with a call; and
- b) sending the message over a packet network to a media gateway supporting the call.

41. (Withdrawn) A system for providing metering from a gateway in a packet network comprising:

- a) a packet interface to facilitate communication with a media gateway over a packet network; and
- b) a control system associated with the packet interface and adapted to:
  - i) generate a message comprising a complete call tariff model for controlling all metering in association with a call; and
  - ii) send the message over the packet network to the media gateway supporting the call.

**(9) EVIDENCE APPENDIX**

Appellant relies on no evidence, thus this appendix is not applicable.

**(10) RELATED PROCEEDINGS APPENDIX**

As there are no related proceedings, this appendix is not applicable.